

REMARKS

Claims 1-28, all the claims pending in the application, stand rejected on prior art grounds. Applicants respectfully traverse these rejections based on the following discussion.

I. The Prior Art Rejections

Claims 1-4, 6, 8-11, 13, 15-18, 20, 22-25 and 27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Childers et al. (U.S. Patent No. 6,877,117), hereinafter referred to as Childers. Claims 5, 12, 19 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Childers, in view of Bartlett et al. (U.S. Patent No. 3,761,882), hereinafter referred to as Bartlett. Claims 7, 14, 21 and 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Childers in view of Porter et al. (U.S. Patent No. 5,263,032), hereinafter referred to as Porter. Applicants respectfully traverse these rejections based on the following discussion.

The claimed invention provides a self-monitoring and self-correcting integrated circuit device and a method of continuously monitoring and adjusting the operation of the integrated circuit device. In the rejection, the Office Action argues that Childers teaches a self-monitoring and self-correcting integrated circuit device comprising a self-testing controller adapted to periodically perform performance self-testing on the integrated circuit device. In addition, the Office Action argues that Childers teaches a processor adapted to adjust parameters of the integrated circuit device. Unlike the claimed invention, however, the optical signal receiver in Childers only tests for errors in the

signal being processed by the circuit; it does not test the *circuit itself*. Furthermore, the circuit in Childers is temporarily changed to compensate for errors in the signal being processed by the circuit; permanent changes to the circuit are not made and recorded to compensate for failed portions of the circuit. Therefore, as explained in greater detail below, Applicants respectfully submit that the prior art of record does not teach or suggest the claimed invention.

The Office Action argues that Childers teaches a self-monitoring and self-correcting integrated circuit device comprising a self-testing controller adapted to periodically perform performance self-testing on the integrated circuit device; and a processor adapted to adjust parameters of the integrated circuit device (Office Action, p. 2, para. 7 – p. 3, para. 1; p. 4, para. 1). Furthermore, the Office Action argues that Childers teaches a method of monitoring and adjusting the operation of the integrated circuit device, comprising periodically performing testing on the integrated circuit device; and adjusting parameters of the integrated circuit device (Office Action, p. 5, para. 4; p. 6, para. 5).

In support for these arguments, the Office Action cites Figure 2 and column 5, lines 15-25 of Childers, wherein the Office Action argues that the control circuit 22 of Childers is analogous to the self-testing controller of the claimed invention. Moreover, the Office Action argues that the digital to analog converter 42 of Childers is analogous to the processor of the claimed invention. More specifically, the portion cited by the Office Action discloses a comparator 16 that receives an analog data input on a line 28

and a decision threshold input on a line 44. The control circuit 22 generates the decision threshold, which is coupled to the comparator decision threshold input port on the line 44.

Unlike the claimed invention, however, the optical signal receiver in Childers only tests for errors in the *signal* being processed by the circuit; it does not test the *circuit itself*. Furthermore, the circuit in Childers is temporarily changed to compensate for errors in the signal being processed by the circuit; permanent changes to the circuit are not made and recorded to compensate for failed portions of the circuit.

As further explained in column 2, lines 20-53 of Childers, the invention is organized about the concept of providing an optical receiver configuration that adjusts a decision threshold that reduces bit error rate (BER). Specifically, the optical receiver includes a photodetector that converts an optical signal received from a fiber optic network to an electrical input data signal. A comparator is provided that compares the electrical input data signal to a decision threshold signal to provide a digital output data signal. Further, an error correction and detection circuit detects errors in the digital output data signal and provides an error calculation signal representative of the detected errors in the data output from the comparator. Based on the error calculation signal, a control circuit modifies the comparator decision threshold and, preferably, a rate of comparison threshold adjustment to reduce the BER of the receiver.

However, nothing within Childers teaches testing an integrated circuit device itself for errors; the optical signal receiver in Childers only tests for errors in the signal being processed by a circuit. Furthermore, nothing within Childers teaches making and recording permanent changes to the circuit to compensate for failed portions of the

circuit; the circuit is temporarily changed to compensate for errors in the signal being processed by the circuit.

Thus, it is Applicants' position that Childers, neither individually or in combination with Bartlett and/or Porter, does not teach or suggest the claimed feature of "a self-testing controller adapted to periodically perform performance self-testing of said integrated circuit device ... and a processor adapted to permanently [self-]adjust parameters of said integrated circuit device" as defined by independent claims 1 and 8; or, "periodically performing performance [self-]testing of said integrated circuit device ... and [self-]adjusting parameters of said integrated circuit device" as defined by independent claims 15 and 22.

Therefore, it is Applicants' position that the proposed combination of Childers and Bartlett and/or Porter does not teach or suggest many features defined by independent claims 1, 8, 15, and 22 and that such claims are patentable over the prior art of record. Further, it is Applicants' position that dependent claims 2-7, 9-14, 16-21, and 23-28 are similarly patentable, not only because of their dependency from a patentable independent claims, but also because of the additional features of the invention they defined. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 1-28, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0456.

Respectfully submitted,

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